

MSLIN98-002GC

Application no. 09/251,183

PLEASE AMEND THE CLAIMS AS FOLLOWS:

01 3. (Twice Amended) The method of claim 1 wherein said top metallization system contains lines that are selected from the group consisting of signal lines, power buses, ground buses or a combination thereof.

Please cancel claims 4-10.

02 11/15. (Twice Amended) The method of claim 1 wherein said insulating, separating layer of polymer comprises polyimide.

03 11/19. (Twice Amended) The method of claim 1 wherein said insulating, separating layer of polymer is cured at a temperature within a range of approximately 250 to 450 degrees C. for a time within a range of approximately 0.5 to 1.5 hours, said curing to occur within a vacuum or nitrogen ambient.

04 13/21. (Twice Amended) The method of claim 20 wherein each of said multiple processing steps of spin on coating and curing is performed at a temperature within a range of approximately 250 to 450 degrees C. for a time within a range of approximately 0.5 to 1.5 hours, said curing to occur within a vacuum or nitrogen ambient.

05 12/50. (Twice Amended) The method of claim 21 wherein said top metallization system contains lines that are selected from the group consisting of signal lines, power buses and ground buses or a combination thereof.

MSLIN98-002CC

Application no. 09/251,183

Please cancel claims 51-55.

46. (Amended) A method for forming a top metallization system for high performance integrated circuits comprising:

D6 forming an integrated circuit comprising a plurality of devices formed in and on a semiconductor substrate, with an overlaying interconnecting metallization structure connected to said devices and comprising a plurality of first metal lines in one or more layers, wherein intermetal dielectric layers are formed between said plurality of first metal lines;

depositing a passivation layer over said interconnecting metallization structure;

depositing a polymer insulating, separating layer over said passivation layer that is substantially thicker than each of said intermetal dielectric layers;

forming openings through said polymer insulating, separating layer and said passivation layer to expose upper metal portions of said overlaying interconnecting metallization structure; depositing metal contacts in said openings; and

forming said top metallization system connected to said overlaying interconnecting metallization structure, wherein said top metallization system comprises a plurality of top metal lines, in one or more layers, each of said top metal lines having a width